

tenon recess 21a and, (d) the barrel bushing 23 firmly engaging the front of the barrel and holding it in a concentric position. These are the only fits which must be maintained in order to assure accuracy of the pistol from shot to shot.

The above description shows that the barrel will be engaged in the slide in exactly the same position in-battery shot after shot. Thus, if the sights are accurately aligned with the barrel, maximum accuracy will be attained. It may be observed, however, that if any battering, wearing away or other changing of the contour of either the stop pin or the under-barrel lug occurs, this changing of contour will cause the barrel lug to shift upwardly on its contour against the slide stop pin. Theoretically this could affect the vertical alignment of the barrel. However, such change is not anticipated to amount to more than a maximum of 0.010 inches over a course of 10,000 rounds. Even so, since the entire thrust of this invention is accuracy, any weapon incorporating it is presumed to contain adjustable sights. Thus, small shifts in position occurring after the firing of thousands of rounds can easily be compensated for. What is important is that constant and accurate vertical and lateral positioning of the rear of the barrel in the slide from shot to shot can be maintained by this invention.

While this description constitutes the best mode presently known of making and carrying out the invention, modifications may be made without departing from this invention which is to be limited only by the appended claims.

I claim:

1. In a semi-automatic pistol of the locked-breech type having,

- (a) a frame,
- (b) a barrel containing a tenon projecting from the rear upper portion thereof and a contoured under-barrel lug projecting downwardly from the rear portion thereof,
- (c) a connecting link attached to the under-barrel lug pivotally connecting the barrel to the frame by means of a slide stop pin which passes through the frame and an aperture in the lower portion of the connecting link and
- (d) a slide slidably engaged on said frame said slide encompassing said barrel and having a top undersurface adapted to engage the top of the barrel and a tenon recess adapted to engage the barrel tenon when the barrel and slide are in battery;

the improvement comprising,

- (e) a barrel wherein the sides of the barrel tenon taper inwardly and backwardly and wherein the under-barrel lug is contoured with an arcuate contour which represents a portion of a circle having a diameter larger than the diameter of the slide stop pin

- (f) a connecting link having an aperture in the lower portion thereof having a diameter slightly larger than the diameter of the slide stop pin
- (g) a slide having a tenon recess whose sides are tapered inwardly at the same angle as the sides of the barrel tenon; wherein the tenon recess has a lateral width slightly smaller than the lateral width of the barrel tenon and
- (h) means in the slide to fully elevate the barrel during the recoil and loading cycle of the pistol prior to the tenon becoming engaged in the tenon recess wherein, the frame, barrel, connecting link and slide cooperate in such a manner that when in battery the tenon is jam fitted into the walls of the tenon recess in the slide preventing lateral movement of the tenon and the barrel is jam fitted with the upper surface of the barrel engaging the top undersurface of the slide and the contour of the under-barrel lug resting on the slide stop pin in such a manner as to exert an upward and forward force on the barrel preventing vertical movement of the rear portion of the barrel.

2. The improvement according to claim 1 wherein the sides of the tenon and tenon recess are tapered at an angle of between about 15 and 45 degrees from a plane parallel to the longitudinal axis of the barrel.

3. The improvement according to claim 2 wherein the diameter of the aperture in the connecting link is 0.030 to 0.070 inches greater than the diameter of the slide stop pin.

4. The improvement according to claim 3 wherein the arcuate contour of the under-barrel lug engages the periphery of the slide stop pin in the upper rear quadrant of the slide stop pin.

5. The improvement according to claim 4 wherein the arcuate contour of the under-barrel lug represents a portion of the circumference of a circle having a radius of ($a = 1.4142136a$) wherein "a" is the radius of the slide stop pin.

6. The improvement according to claim 5 wherein the tenon is 0.010 to 0.060 inches wider than the width of the tenon recess.

7. The improvement according to claim 6 wherein the means in the slide serving to elevate the barrel during the recoil and loading cycle protrudes forwardly from a shoulder in the slide wall such as to engage the rear portion of the barrel until it is fully elevated.

8. The improvement according to claim 7 wherein the means in the slide protrudes forwardly a distance sufficiently far to cause the tenon walls to be separated from the walls of the tenon recess a distance of about 0.005 to 0.025 inches until the barrel is fully elevated.

9. The improvement according to claim 2 wherein the angle of taper of the tenon and tenon recess walls is between about 20 and 30 degrees.

10. The improvement according to claim 9 wherein the angle of taper of the tenon and tenon recess walls is about 22 degrees.

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